

IN THE CLAIMS

1. (Previously presented) A method for assigning timeslots for a particular cell of a hybrid time division multiple access/code division multiple access communication system, the system having a plurality of cells comprising the particular cell and other cells, the method comprising:

 determining potentially interfering ones of the other cells which potentially interfere with the particular cell;

 for each timeslot, eliminate that timeslot for uplink communication, if first ones of the potentially interfering ones uses that timeslot for downlink communications;

 for each timeslot, eliminate that timeslot for downlink communication for at least one user, if a dynamic interference measurement in that timeslot exceeds a predetermined threshold;

 assigning a timeslot to an uplink communication of the particular cell using non-uplink elimination timeslots; and

 assigning a timeslot to a downlink communication of the particular cell to the at least one user using non-downlink eliminated timeslots.

2. (Original) The method of claim 1 wherein the first ones are base station to base station interfering cells to the particular cell.

3. (Original) The method of claim 2 wherein the base station to base station interfering cells are determined by using link gains between base stations.

4. (Previously presented) The method of claim 1 wherein the at least one user is a single user who took the interference measurement.

5. (Previously presented) The method of claim 1 wherein the at least one user is all the users.

6.-8. (Canceled).

9. (Original) The method of claim 1 wherein the hybrid time division multiple access/code division multiple access communication system is a time division duplex communication system using code division multiple access.

10. (Previously presented) A hybrid time division multiple access/code division multiple access communication system comprising:

a plurality of cells including a particular cell and other cells;
the particular cell comprising:

means for determining potentially interfering ones of the other cells which potentially interfere with the particular cell;

means for each timeslot, for eliminating that timeslot for uplink communication, if first ones of the potentially interfering ones uses that timeslot for downlink communications;

means for assigning a timeslot to an uplink communication using non-uplink eliminated timeslots;

means for taking a dynamic interference measurement in a timeslot and eliminating that timeslot for downlink communication for at least one user if the dynamic measured interference exceeds a threshold; and

means for the at least one user for assigning a timeslot to a downlink communication using non-downlink eliminated timeslots.

11. (Original) The system of claim 10 wherein the first ones are base station to base station interfering cells to the particular cell.

12. (Original) The system of claim 11 wherein the base station to base station interfering cells are determined by using link gains between base stations.

13. (Previously presented) The system of claim 10 wherein the at least one user is a single user who took the interference measurement.

14. (Previously presented) The system of claim 10 wherein the at least one user is all the users.

15.-17. (Canceled).

18. (Original) The system of claim 10 wherein the hybrid time division multiple access/code division multiple access communication system is a time division duplex communication system using code division multiple access.

19. (Previously presented) A hybrid time division multiple access/code division multiple access communication system comprising:

a plurality of cells including a particular cell and other cells;

a radio network controller associated with the particular cell comprising:

a resource allocation device for determining potentially interfering ones of the other cells which potentially interfere with the particular cell; for each timeslot, eliminating that timeslot for uplink communication, if first ones of the potentially interfering ones uses that timeslot for downlink communications; and for each timeslot, for eliminating that timeslot for downlink communication for at least one user, if a dynamic interference measurement in that timeslot exceeds a predetermined threshold; and

a node-B associated with the particular cell comprising an assignment and release device for assigning an uplink communication using non-uplink eliminated timeslots and for assigning a downlink communication to the at least one user, using non-downlink eliminated timeslots.

20. (Original) The system of claim 19 wherein the first ones are base station to base station interfering cells to the particular cell.

21. (Original) The system of claim 20 wherein the base station to base station interfering cells are determined by using link gains between base stations.

22. (Previously presented) The system of claim 19 wherein the at least one user is a single user who took the interference measurement.

23. (Previously presented) The system of claim 19 wherein the at least one user is all the users.

24.-26. (Canceled).

27. (Original) The system of claim 19 wherein the hybrid time division multiple access/code division multiple access communication system is a time division duplex communication system using code division multiple access.

28. (Previously presented) A method for assigning timeslots in a particular cell of a hybrid time division multiple access/code division multiple access communication system, the particular cell comprising a base station and a plurality of user equipments, the method comprising:

(a) estimating timeslots having an unacceptable dynamically measured interference for uplink communications with respect to the base station;

(b) estimating timeslots having an unacceptable dynamically measured interference for downlink communication with respect to the user equipments;

(c) producing an availability list indicating available uplink and downlink timeslots having acceptable dynamically measured interference levels; and

(d) assigning uplink and downlink timeslots using the availability list.

29. (Original) The method of claim 28 wherein the step (a) comprises measuring an interference level in each timeslot at the base station and comparing the measured level to a threshold to estimate unacceptable interference.

30.-32. (Canceled).

33. (Previously presented) A hybrid time division multiple access/code division multiple access communication system comprising:

a particular cell comprising:

a base station and a plurality of user equipments;

first means for estimating timeslots having an unacceptable dynamically measured interference with respect to the base station;

second means for estimating timeslots having an unacceptable dynamically measured interference for downlink communication with respect to the user equipments;

third means for producing an availability list indicating available uplink and downlink timeslots having acceptable dynamically measured interference levels; and

fourth means for assigning uplink and downlink timeslots using the availability list.

34. (Original) The system of claim 33 wherein the first means measures an interference level in each timeslot at the base station and compares the measured level to a threshold to estimate unacceptable interference.

35. (Canceled).

36. (Original) The system of claim 33 wherein the second means measures

Applicant: Ozluturk et al.
Application No.: 10/335,347

an interference level in each timeslot by each user equipment and comparing the measured levels to a threshold to estimate unacceptable interference.

37.-42. (Canceled).